

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please CANCEL claim 12 and AMEND claim 1 in accordance with the following:

1. (Currently Amended) An object handling apparatus for handling an object to transfer the object from an object supply place to an install place of a machine with a predetermined position/orientation, the apparatus comprising:
 - a movable device adjacent to the object supply place delivering the object;
 - a first visual sensor provided at the ~~movable device~~object supply place detecting a position/orientation of the object on the movable device;
 - a first robot picking up the object from the movable device based on position/orientation of the object output from the first visual sensor to a first robot controller, the first robot including a first robot hand, the first robot hand including a plurality of fingers for holding the object, wherein the fingers are driven by one or more servomotors controlled by the first robot controller so that a position and a force of gripping by the fingers on the object is controlled; and
 - a second visual sensor detecting a position/orientation of the object in the first robot hand, wherein
 - the detected position/orientation of the object held by the robot hand is output to the first robot controller from the second visual sensor,
 - the first robot controller calculates a displacement of the detected position/orientation of the object in the first robot hand from a predetermined position/orientation,
 - the first robot controller drives the plurality of fingers to compensate for the displacement of the position/orientation of the object, and
 - when the position/orientation of the object has been compensated for, the first robot delivers the object to the install place of the machine.

2. (Previously Presented) The object handling apparatus according to claim 1, wherein the object is transferred to a jig of a machine tool at the install place of the machine.

3. (Previously Presented) The object handling apparatus according to claim 1, wherein the first visual sensor is a two dimensional sensor.

4. (Previously Presented) The object handling apparatus according to claim 1, wherein the first visual sensor is a three dimensional sensor.

5. (Previously Presented) An object handling apparatus according to claim 1, wherein the first robot controller controls the one or more servomotors to further control the torque placed on the object by the fingers.

6. (Cancelled)

7. (Previously Presented) A method of transferring an object from an object supply place to an install place, comprising:

determining a position/orientation of the object at the object supply place with a first visual sensor, the first visual sensor being provided at the object supply place;

picking up the object with a first robot hand having a plurality of fingers based on the position/orientation of the object as determined by the first visual sensor;

moving the first robot hand to an image capturing position and determining a position/orientation of the object in the robot hand with a second visual sensor;

adjusting the plurality fingers of the first robot hand to compensate for a difference between the position/orientation of the object in the robot hand from the second visual sensor and a predetermined position/orientation of the object in the robot hand;

moving the first robot hand to the install place; and

opening the first robot hand and delivering the object to the install place.

8. (Previously Presented) The method according to claim 7, wherein the first visual sensor comprises a two-dimensional visual sensor.

9. (Previously Presented) The method according to claim 7, wherein the first visual sensor comprises a three-dimensional visual sensor.

10. (Previously Presented) The method according to claim 7, wherein the second visual sensor comprises a two-dimensional visual sensor.

11. (Previously Presented) The method according to claim 7, wherein the second visual sensor comprises a three-dimensional visual sensor.

12-13. (Cancelled)

14. (Previously Presented) The method according to claim 7, wherein the object is transferred to a jig of a machine tool at the install place.

15. (Previously Presented) The method according to claim 7, wherein the plurality of fingers of the first robot hand are driven by one or more servomotors.

16-17. (Cancelled)

18. (Previously Presented) The method according to claim 15, wherein the one or more servomotors for driving the fingers of the first robot hand are controlled by a controller of the first robot.

19-23. (Cancelled)